

A SYNOPSIS OF THE *LACCORNIS DIFFORMIS*  
SPECIES GROUP WITH A REVISED KEY TO  
NORTH AMERICAN SPECIES OF *LACCORNIS*  
DES GOZIS (COLEOPTERA: DYTISCIDAE)

G. W. Wolfe and P. J. Spangler

*Abstract*—Two new species of *Laccornis*, *L. etnieri* and *L. schusteri*, closely related to *L. difformis* (LeConte) are described. *Laccornis difformis* is redescribed. The most conclusive diagnostic structure is the unique male anterior protarsal claw. A revised key to the Nearctic species of *Laccornis* is included.

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A worldwide revision of *Laccornis* Des Gozis (1914) has been initiated by one of us (GWW). In order to provide names to be used in that revision and several other studies nearing completion, two new species of the *difformis* group are described here, and *L. difformis* is redescribed.

Species of the *L. difformis* group are distinguishable from other members of *Laccornis* by the following unique set of characters: 1) male metafemora each with a dense fringe of long setae at posterior edge; 2) male antennal segments 3 to 5 laterally expanded (Figs. 1, 3, 4); (3) aedeagus laterally expanded to form a broad, flat, irregular oval shape (Figs. 8-16).

The best way to distinguish specimens of the three species discussed herein is by comparison of the structure of the male anterior protarsal claw. Females of this group may be separated reliably only by association with males.

*Laccornis difformis* (LeConte)

Figs. 1, 2, 5, 8-10, 17

*Hydroporus difformis* LeConte, 1855:298.

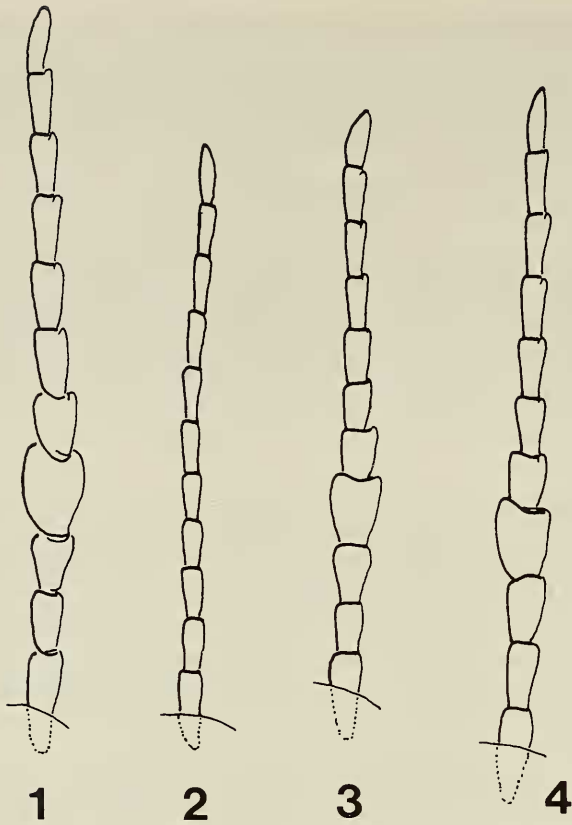
*Agaporus difformis*.—Fall, 1923:124.

*Laccornis difformis*.—Leech, 1940:126.

*Diagnosis*.—Characterized by distinctly modified (broadened) fourth antennal segment (Fig. 1); anterior protarsal claw expanded and acute apex centrally positioned when viewed laterally (Fig. 5); acute apex of aedeagus deflected at right angle to plane of aedeagus, in lateral view (Fig. 8).

*Redescription*.—The holotype male is in poor condition; therefore, the following description is supplemented with other comparative material deposited with the type. Holotype: Length, 6.2 mm; width, 3.0 mm. (The form is somewhat obscured in the teneral type because the specimen is pinned through the elytron.) Head, pronotum, and elytra in continuous outline; maximum width approximately  $\frac{1}{3}$  from base of elytra. Although not obvious in type, dorsal outline rather tapered in posterior  $\frac{2}{3}$ . Lateral margins of pronotum evenly rounded toward anterior angles; with distinct, uniformly narrow lateral bead; bead about  $\frac{1}{4}$  as wide as second antennal segment.

(The coloration is obscure in the pale, teneral type.) Head and antennae light

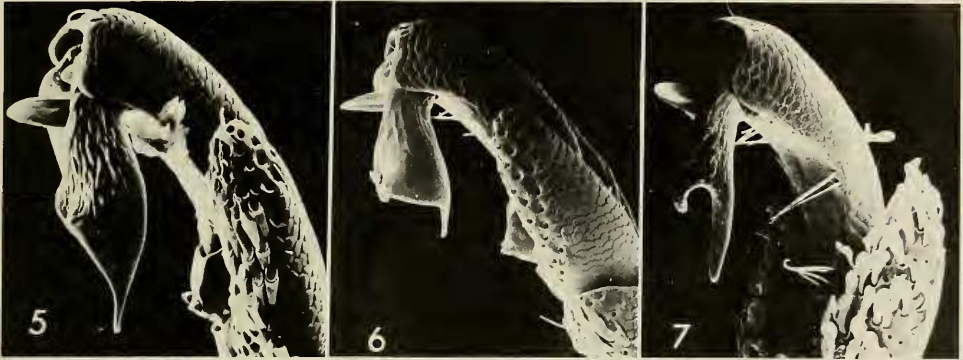


Figs. 1-4. Antenna: 1 & 2, *Laccornis difformis* (LeConte): 1, Male; 2, Female; 3, *Laccornis etnieri*, n. sp., male; 4, *Laccornis schusteri*, n. sp., male.

reddish brown. Pronotum darker reddish brown laterally, vaguely lighter discally. Elytra lighter reddish brown in basal fifth; posterior  $\frac{4}{5}$  dark reddish brown, approaching darker areas of pronotum in color. Ventrally, head, procoxae, mesocoxae, femora, and epipleura reddish yellow. Metafemora darker reddish yellow. Metepisterna, metacoxae, and abdominal sterna darker reddish brown. First abdominal sterna somewhat lighter than sterna 4-6.

Prosternal process abruptly declivous anteriorly; declivity granulate and slightly rugose; prosternal area in front of procoxae granulate. Prosternal process with medial longitudinal ridge behind declivity and ending just before tip; narrower between anterior coxae then expanding gradually to twice intercoxal width; lateral edges margined; tip bountly rounded. Metasternum shallowly depressed to receive prosternal process; metasternum very shallowly sulcate behind depression.

Body surfaces not distinctly shining. Dorsal surface of head, pronotum, and elytra with minute but perceptible microreticulation. Punctuation of head rather dense, of two sizes; larger punctures moderately fine; smaller punctures extremely minute. Pronotal punctuation also of two sizes; sparser and finer distally. Elytral punctuation coarser; very slightly denser basally, laterally, and apically; punctures of two sizes; extremely minute punctures (visible at  $60\times$ ) interspersed among larger punctures. Ventral surface and appendages microreticulate. Metepisternum



Figs. 5–7. Male protarsal claws: 5, *Laccornis difformis* (LeConte); 6, *Laccornis etnieri*, n. sp.; 7, *Laccornis schusteri*, n. sp., 270 $\times$ .

reticulate medially then progressively rugose laterally. Metacoxa with oblique strigae intermixed with very fine, sparse punctures. Abdomen with oblique strigae on sterna 1 and 2; strigae become more laterally oriented on discal area of sterna 3 to 5.

Posterior femur with dense fringe of long, golden, hairlike setae along posterior edge. Male with antennal segments 3, 4, and 5 wider; segment 4 distinctly so (about 43% wider than 2nd segment). Protarsi somewhat expanded. (On LeConte's type, only one completely intact protarsus is present. Although the tip of the anterior claw is broken off, the distinctive shape is recognizable, and the type could be associated with other available specimens of the species.) Anterior claw expanded; apex acute (Fig. 5).

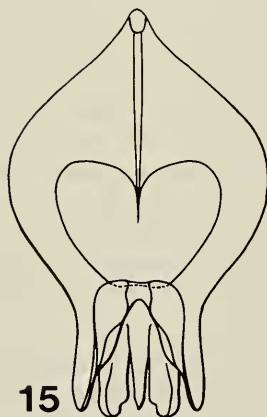
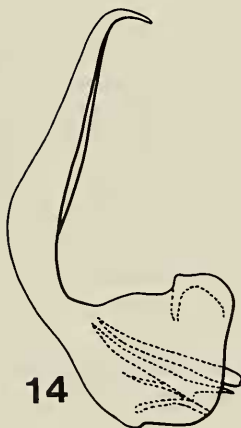
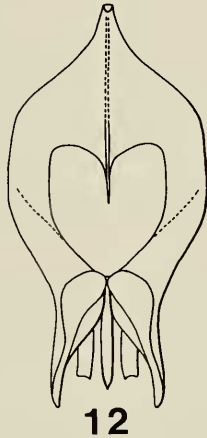
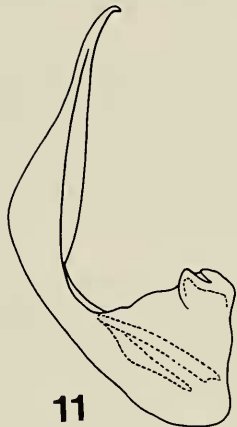
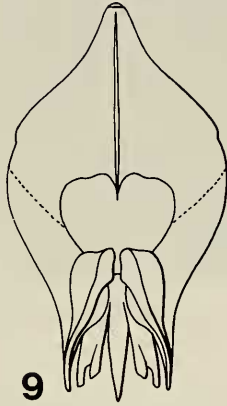
Aedeagus distinctly bent at tip when viewed laterally. In dorsal view, aedeagus rather acute apically (posteriorly) then broadly expanding anteriorly (Fig. 9). (The type was too fragile to allow dissection of the aedeagus. Association by the anterior protarsal claw, however, is conclusive and another specimen was dissected for the illustration of the aedeagus.)

*Females*.—Similar to males except antenna and protarsal claw not modified; medial line of prosternal process not as carinate; and metafemora non-setose.

*Variation*.—(Measured specimens from Peekskill, New York.) Males ( $n = 10$ ):  $L = 5.9$  mm (range 6.0 mm–5.7 mm);  $W = 2.9$  mm (range 3.0 mm–2.7 mm). Females ( $n = 10$ ):  $L = 6.0$  mm (range 6.4 mm–5.6 mm);  $W = 2.8$  mm (range 2.9 mm–2.7 mm). Dorsal coloration varies from specimens with rather uniformly reddish brown head, pronotum, and elytra to specimens that are rather distinctly bicolored. In the latter, the head and the basal areas of the elytra are lighter yellowish brown and the remainder of the elytra is dark reddish brown. In the most distinctly marked specimens, the lighter basal area of the elytra appears as a distinct basal band, even when viewed macroscopically. Teneral specimens are light brown and the light yellowish basal area may extend along the suture to the apex of the elytra.

*Type data*.—LeConte specifically mentions that only one specimen, from Georgia, was available for his description. That specimen is, therefore, the holotype; it is deposited in the MCZ.

*Material examined*.—HOLOTYPE: GEORGIA (no additional data) (MCZ).



Other material examined: MARYLAND: Anne Arundel County: Bowie, Patuxent Refuge, 26 Feb 1945, Stickel, 1 male, 1 female (NMNH).—Talbot County: Easton, 13 Oct 1973, P. & P. Spangler, 1 female (NMNH).—Wittman, 26 & 27 May 1973, W. E. Steiner, Jr., 1 male, 3 females (NMNH).—Wittman, 12 Jul 1978, P. J. Spangler, 3 males, 6 females (NMNH). MASSACHUSETTS: Middlesex County: Melrose, 15 Mar, D. H. Clemons, 2 females (NMNH).—Stoneham, L. S. Stevens, 1 male, 2 females (CAS).—Stoneham, May 1914, F. A. Sheriff, 1 male, 1 female (CAS).—Bristol County: Falls River, H. C. Fall, 1 male (CAS).—Falls River, 22 Apr 1922, N. S. Easton, 1 male, 1 female (CAS). NEW JERSEY: Burlington County: Chatsworth, 25 May 1929, J. W. Green, 1 female (CAS).—Essex County: 30 Apr 1900, Roberts Coll., 1 male, 1 female (AMNH).—Millburn, Apr 1924, Sherman Coll., 1 female (NMNH).—Millburn, 30 Apr 1924, J. D. Sherman, 1 male (AMNH).—Ocean County: Lakehurst, 1 Sep, J. D. Sherman, 1 male (NMNH). NEW YORK: Suffolk County: Greenport, Long Island, 19 Jul 1942, Roy Latham, 1 male (CU).—Greenport, Long Island, 19 Jul 1942, Roy Latham, 1 male (NYSM).—Greenport, Long Island, 21 Aug 1940, Roy Latham, 1 male, 1 female (NYSM).—Riverhead, Long Island, 19 Jul 1942, Roy Latham, 1 male (NYSM).—Richmond County: Staten Island, J. D. Sherman Coll., 2 females (NMNH).—Staten Island, 5 May, J. D. Sherman Coll., 1 male (NMNH).—Westchester County: Peekskill, 7 Jul 1888, 1 female; 3 Jun 1890, 3 females; 1 Jun 1891, 5 females; 30 May 1900, 12 males, 15 females; 30 May 1901, 2 males, 2 females; 1926, 20 males, 18 females; all collected by J. D. Sherman and all in (NMNH).—J. D. Sherman, 2 females, Hippong Coll. (CAS).—Roberts Coll., 1 male, 1 female (MCZ); 30 May 1901, 11 males, 10 females, all in Roberts Coll. (AMNH).—Hubbard and Schwarz, 1 male, 2 females (NMNH).—1933, Wickham Coll., 1 female (NMNH).—30 May 1901, Van Dyke Coll., 7 males, 6 females (CAS).—May 1930, H. C. Fall Coll., 2 males (MCZ).—White Plains, 13 Apr 1924, E. H. P. Squire, 1 male (CU). NORTH CAROLINA: Nash County: Rocky Mt., 2 Jun 1971, Coll. Matta. SOUTH CAROLINA: Georgetown County: Murrell's Inlet, 21 Apr 1974, W. E. Steiner, Jr., 1 male, 1 female (NMNH).

This taxon apparently is restricted to the Atlantic Coast in eastern North America (Fig. 17). The northern and southern limits are uncertain. Fall (1923) mentions specimens from Marquette, Michigan, but all specimens available from that locality have proved to be *L. latens*, which was described at a later date by Fall (1937). Malcolm (1971) mentions specimens, now apparently lost, from Maine. Two female specimens from Rhode Island and in the University of Michigan collection are probably *L. difformis*. The southernmost record *L. difformis* is LeConte's holotype, with no specific locality data other than the state, Georgia. That specimen may be from either the Atlantic or Gulf Coast. The farthest inland locality from which members of this species have been taken is in North Carolina (Rocky Mt., Nash County). The known ranges of *L. difformis* and *L. etnieri* closely approach each other in Maryland, in the vicinity of Washington, D.C.

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Figs. 8–16. Male genitalia: 8–10, *Laccornis difformis* (LeConte): 8, Median lobe, lv; 9, Median lobe, vv; 10, Paramere, lv. 11–13, *Laccornis etnieri*, n. sp.: 11, Median lobe, lv; 12, Median lobe, vv; 13, Paramere, lv. 14–16, *Laccornis schusteri*, n. sp.: 14, Median lobe, lv; 15, Median lobe, vv; 16, Paramere, lv. lv = lateral view, vv = ventral view.



Fig. 17. Known distribution of *Laccornis difformis* (LeConte), *Laccornis etnieri*, n. sp., and *Laccornis schusteri*, n. sp.

*Habitat.*—This species inhabits woodland ponds, especially in flood plains along rivers, and swampy areas in lowland coastal situations.

*Laccornis etnieri*, new species

Figs. 3, 6, 11–13, 17

*Diagnosis.*—Distinguished from all other members of *Laccornis* by the following combination of male characters: 1) fourth antennal segment distinctly wider than any other antennal segment (Fig. 3); 2) anterior protarsal claw expanded, with apex truncate except for acute, laterally displaced, short projection (Fig. 6); 3) aedeagal apex only slightly deflected in lateral view (Fig. 11).

*Holotype male.*—Length, 5.7 mm; width, 2.8 mm. The shape, prothorax, antennal modifications, and punctuation are essentially as in *L. difformis*.

Head reddish brown; antennae somewhat lighter. Pronotum darker reddish brown, vaguely lighter laterally. Elytra basally the same reddish brown as head, then suffusing into darker brown discally; apically, elytra never as dark as pronotum. Ventrally reddish brown; metacoxal plates and abdominal sterna darker. Legs and epipleura reddish brown.

Metafemur with dense fringe of long, golden, natatory, hairlike setae along posterior margin. Protarsus slightly modified, broader than protarsus of female. Anterior protarsal claw (Fig. 6) expanded, truncate; anterolateral projection slender, with acute tip.

Genitalia (Figs. 11–13) similar to genitalia of *L. difformis* but bent tip of median lobe much shorter and less distinctly deflected.

*Allotype.*—Length, 6.0; width, 2.8 mm. The only female taken in association with a male is teneral. However, the following structural features are significant; antenna and anterior protarsal claw unmodified. Prosternal process is somewhat longitudinally carinate but not as distinctly carinate as in male specimens. Metafemur without dense fringe of natatory hairlike setae.

*Variation.*—Males ( $n = 10$ ):  $L = 5.6$  mm (range 6.0 mm–5.2 mm);  $W = 2.8$  (range 3.0 mm–2.7 mm). Females ( $n = 5$ ):  $L = 5.5$  mm (range 5.8 mm–5.4 mm);  $W = 2.8$  mm (range 2.8 mm–2.6 mm). Dorsal coloration varies from rather uniformly reddish brown to specimens with a suffused light basal elytral band. In some specimens the pronotum is somewhat darker than the head.

*Etymology.*—This species is named for Dr. David Etnier, who has enthusiastically provided assistance and guidance to many students of Ichthyology and Aquatic Entomology. He has generously made many collections of aquatic Coleoptera for us from Alaska and Minnesota to provide comparative material to supplement studies in Tennessee and the southeast.

*Type data.*—HOLOTYPE: TENNESSEE: Jefferson County: Temporary pond on Co. Rd. approximately 1 mile from Eslinger Rd., Apr 1976, G. W. Wolfe; NMNH Type No. 76129, deposited in the National Museum of Natural History, Smithsonian Institution. ALLOTYPE: TENNESSEE: Coffee County: Goose Pond at Arnold Center, near the headwaters of Brumalow Creek, 12 Jun 1976, G. W. Wolfe (NMNH). PARATYPES: TENNESSEE: Moore County: King Swamp along Turkey Cr. Rd., off Co. Rd. 6372 in northeastern Moore Co. by Franklin Co. line, 7 May 1977, 1 male, G. W. Wolfe, G. A. Schuster, B. S. Wunderlin.—Coffee

County: Goose Pond at Arnold Center, near the headwaters of Brumalow Creek, 12 Jun 1976, G. W. Wolfe, 1 male.—Overton County: Woodland swamp on Co. Rd. 4327, 1.2 mi. S. Jct. with Co. Rd. 4393, 23 Apr 1977, 1 female, G. W. Wolfe. VIRGINIA: Fairfax County: Great Falls, J. D. Sherman Coll., Sep 1928, 1 male, 1 female (NMNH).—Shenandoah County: 20 Jul 1973, 2 males, J. F. Matta (ODU). PENNSYLVANIA: Northampton County: Belfast, 29 Jun 1948, 1 male, J. W. Green (CAS). MARYLAND: Montgomery County: Woodland pond on mainland near Plummers Is., 23 Oct 1965, 2 males, 4 females; 21 Jan 1960, 1 male; 5 Jul 1960, 1 male; 1 Feb 1964, 3 females, all by P. J. Spangler (NMNH).—6 Nov 1921, 2 males, 1 female, Schwarz and Barber Coll. (NMNH).

There are relatively few collections of this species available. However, we predict that specimens of *L. etnieri* are common in non-coastal regions of eastern North America.

*Laccornis schusteri*, new species

Figs. 4, 7, 14–16, 17

*Diagnosis.*—Males of *L. schusteri* are distinguishable among species of *Laccornis* by the following characters: 1) fourth antennal segment distinctly wider than other antennal segments (Fig. 4); 2) anterior protarsal claw expanded, apex truncate except for robust, laterally displaced, long, tapered projection (Fig. 7); 3) aedeagal apex deflected slightly more than 90 degrees in lateral view, actually appearing a little reflexed (Fig. 14).

*Holotype male.*—Length, 6.1 mm; width, 3.1 mm. Shape, prosternal process, antennal modifications, and punctation are essentially as in the previous two species. Head reddish brown; antennae somewhat lighter. Pronotum darker reddish brown. Basal fifth of elytra yellowish, then becoming reddish brown in posterior  $\frac{1}{5}$ ; posterior portions of elytra darker than the head but a little lighter than pronotum. Ventrally, head, procoxae and mesocoxae, legs and epipleura yellowish. Metacoxae and abdomen dark reddish brown; posterior abdominal segments more infuscate.

Posterior edge of metafemur with dense, long setae. Protarsus slightly expanded. Anterior protarsal claw (Fig. 7) narrowly expanded; anterolateral projection robust, long, and tapered.

Aedeagus very similar to that of males of *L. difformis* but somewhat more broadly expanded and tip slightly more reflexed (Figs. 14–16).

*Allotype.*—Length, 5.9 mm.; width, 2.9 mm. Prosternal process rounded, not longitudinally carinate. Antenna and protarsal claw unmodified; posterior femur without fringe of dense setae.

*Variation.*—Males ( $n = 10$ ):  $L = 5.9$  mm (range 6.1 mm–5.6 mm);  $W = 2.9$  mm (range 3.0 mm–2.7 mm). Females ( $n = 6$ ):  $L = 5.7$  mm (range 5.9 mm–5.4 mm);  $W = 2.8$  (range 3.0 mm–2.7 mm). Most specimens are rather well marked. The most distinctly marked specimens possess a yellowish basal band on the elytra, yellowish head, and uniformly dark pronotum and posterior  $\frac{1}{5}$  of elytra. In other specimens, the discal area of the pronotum and posterior portions of the elytra are lighter reddish brown. Some specimens are almost uniformly reddish brown in dorsal view. Ventrally the metasternum and metacoxae are usually



reddish in color with the abdominal segments becoming progressively darker; the last two abdominal segments appear infuscate in the metacoxal and metasternal areas.

*Etymology.*—This species is named for Dr. Guenter A. Schuster. He has generously collected material for us in southeastern North America and his studies involving Trichoptera have contributed important knowledge to aquatic entomology.

*Type-data.*—HOLOTYPE AND ALLOTYPE: TENNESSEE: Stewart County: Cotrell Pond, 12 Jun 1977, G. W. Wolfe; NMNH Type No. 76130, deposited in the National Museum of Natural History, Smithsonian Institution. PARATYPES: Stewart County: Same locality data as holotype and allotype, 14 males, 9 females.

*Other material examined.*—TENNESSEE: Obion County: 3 miles east of Obion, 12 Jul 1977, G. W. Wolfe, 4 males, 2 females.

So far this taxon is known only from two localities in western Tennessee; however, the locality in Stewart County is just east of the Tennessee River, on the western edge of the western highland rim. It is possible that this species is most common in the coastal plain region of Tennessee and farther south on the gulf coast.

*Habitat.*—Found in woodland pools. The two known localities were heavily shaded and the substrate was composed of leaves and detritus; very little rooted vegetation was evident.

#### Taxonomic and Distributional Summary

*Laccornis difformis*, *L. etnieri*, and *L. schusteri* are considered a monophyletic group because each species possesses a broadly expanded aedeagus (Figs. 9, 12, 15), in dorsal view. This aedeagal shape is unknown in any other hydroptorine including other species of *Laccornis*. Based on anterior protarsal claw structure, the sister taxon to the *difformis* group is probably *L. latens* Fall. Fall (1937) previously noted similarity between *L. difformis* and *L. latens*.

*Laccornis difformis*, *L. etnieri*, and *L. schusteri* are structurally similar; indeed, specific status was doubted until distributional information was closely examined. *Laccornis difformis* occurs primarily in Atlantic coastal areas. The distribution of *L. etnieri* is centered in non-coastal areas to the west of *L. difformis*. Despite the fact that these two species have been collected at proximate localities in Maryland and eastern Virginia, no specimens were discovered with the male protarsal claws intermediate in shape, thus suggesting to us that the two taxa are reproductively isolated.

*Laccornis schusteri* is known only from two localities, but specimens of that species are as different from those of either *L. difformis* or *L. etnieri* as the latter two are from each other. *Laccornis schusteri* and *L. etnieri* are both known from Tennessee; however, collections in woodland pools throughout the state have never produced hybrid specimens.

Sympatry among members of the *L. difformis* species group is unknown.

Our interpretation herein indicates that the larva and pupa described by Spangler and Gordon (1973) as *L. difformis* represents the immature stages of *L. etnieri*.

Key to Males of the Nearctic Species of *Laccornis*  
(Modified from Leech 1940)

1. Male anterior protarsal claw distinctly acutely toothed at middle. Antennal segments 3–7 distinctly broadened. Metacoxal plate distinctly punctate, often subrugose; punctures slightly finer than those on elytron. Male with elytra more attenuate posteriorly; mesofemur and metafemur fringed with long setae on posterior margin . . . . . 2
  - Male anterior protarsal claw broadened and/or contorted. At most, antennal segments 3–5 somewhat broadened. Metacoxal plate finely strigate or very finely and sparsely punctate, or both. Male with elytra more attenuated than in female, or not. Mesofemur never with posterior fringe of setae. Metafemur fringed posteriorly or not . . . . . 3
- 2(1). Elytra coarsely and rather evenly punctate; with very few small punctures intermixed. Aedeagal apex reflexed; reflexed portion long and ligulate; apex acute . . . . . *pacificus* Leech
  - Elytra moderately coarsely punctate; punctures intermixed, large ones sparse and irregular, small ones numerous and well defined. Aedeagal apex reflexed, but reflexed portion long and spatulate; apex rounded . . . . . *conoideus* (LeConte)
- 3(1). Elytra extremely finely punctate; strongly attenuate posteriorly in both sexes. Color yellowish brown. Size larger (>5.85 mm). Male anterior protarsal claw a little contorted and foliate. Metafemur of male without fringe of long setae on posterior margin . . . . . *deltoides* (Fall)
  - Elytra more coarsely punctate; moderately attenuated posteriorly, more strongly so in male. Size smaller (<5.85 mm). Male protarsal claw distinctly contorted and foliate (Figs. 5–7). Metafemur with or without fringe of setae. Color light to dark reddish brown . . . . . 4
- 4(3). Pronotum piceous, darker than head or elytral base. Male metafemur without fringe of long setae along posterior margin. Aedeagal apex reflexed; broadly triangular at tip . . . . . *latens* (Fall)
  - Pronotum reddish brown at least discally, little or not darker than head or base of elytra. Metafemur of male with fringe of long setae on posterior margin . . . . . 5
- 5(4). Male anterior protarsal claw expanded; apex acute (Fig. 5) . . . . . *difformis* (LeConte)
  - Male anterior protarsal claw truncate; with either slender anterolateral process (Fig. 6) or long robust anterolateral process (Fig. 7) . . . . . 6
- 6(5). Male anterior protarsal claw with extremely elongate robust lateral process (Fig. 7). Tip of aedeagus distinctly bent; bent portion long in lateral view (Fig. 14) . . . . . *schusteri*, new species
  - Anterior protarsal claw broadly truncate; with short lateral process (Fig. 6). Tip of aedeagus feebly bent; bent portion short in lateral view (Fig. 11) . . . . . *etnieri*, new species

Acknowledgments

Curators from the following institutions have generously lent specimens for this study: National Museum of Natural History, Smithsonian Institution (NMNH);

California Academy of Sciences (CAS); Cornell University (CU); American Museum of Natural History (AMNH); Old Dominion University (ODU); Museum of Comparative Zoology at Harvard (MCZ); New York State Museum (NYSM); and the University of Minnesota (UM). Our thanks are extended to the curators of those collections. We acknowledge and thank Dr. Guenter A. Schuster, Dr. J. F. Matta, and Ms. Belinda S. Wunderlin for their assistance with collecting some of the specimens included in this study. We also thank Mrs. Susann Braden, Smithsonian Institution scanning electron microscopist, for the micrographs and Michael Druckenbrod, former Smithsonian Institution biological illustrator, for preparing the line drawings of the aedeagi (Figs. 8–16).

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(GWW) Department of Entomology and Economic Zoology, Cook College, P.O. Box 231, New Jersey Agricultural Experiment Station, Rutgers University, New Brunswick, New Jersey 08903; (PJS) Department of Entomology, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560.

#### Addendum

Since submission of this paper for publication, specimens of *Laccornis oblongus* Stephens were discovered from Canada with the following locality information: Tununuk, N.W.T., 10 Aug 1930, O. Bryant/Mackenzie River 1930 Trip, Lot 114 O. Bryant. This is the first discovery of a Palearctic species of *Laccornis* in the Nearctic region; as far as we know, *L. oblongus* is the only species of *Laccornis* with a circumboreal distribution.

Male specimens of *L. oblongus* can be included in the above key by making couplet 1 trichotomus by inserting the following addition at the beginning of couplet 1; the rest of couplet 1 remains unchanged.

1. Male anterior protarsal claw unmodified (i.e. neither toothed nor broadened and contorted); antennal segments 3–7 not broadened ..... *oblongus* Stephens

The aedeagus of *L. oblongus* is illustrated in Leech (1940).